

**Norsk Hydro ASA**  
**Buy Global Commodity Creator for Dollar Diversification**

| <i>Symbol</i> | <i>Price</i>      | <i>Shares</i> | <i>Market Cap</i> | <i>Net</i>           |                            | <i>McDep Ratio</i> | <i>EV/</i>   | <i>EV/</i>    | <i>P/E</i> | <i>Div'd</i> | <i>PV/</i> |
|---------------|-------------------|---------------|-------------------|----------------------|----------------------------|--------------------|--------------|---------------|------------|--------------|------------|
|               | <i>(\$/sh)</i>    |               |                   | <i>Present Value</i> | <i>Debt/ Present Value</i> |                    | <i>Sales</i> | <i>Ebitda</i> |            | <i>NTM</i>   | <i>NTM</i> |
|               | <i>2-Jan 2004</i> | <i>(mm)</i>   | <i>(\$mm)</i>     | <i>(\$/sh)</i>       |                            |                    | <i>NTM</i>   | <i>NTM</i>    | <i>NTM</i> | <i>(%)</i>   | <i>NTM</i> |
| NHY           | 62.70             | 257           | 16,110            | 95.00                | 0.19                       | 0.73               | 0.8          | 4.2           | 10.7       | 2.5          | 5.7        |

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

EV = Enterprise Value = Market Cap and Debt: \$mm 21,900

Ebitda = Earnings before interest, tax, depreciation and amortization: \$mm 5,260

NTM = Next Twelve Months Ended December 31, 2004; P/E = Stock Price to Earnings

PV = Present Value of energy businesses: \$mm 30,200

The Norwegian government owns 44% of the shares in Norsk Hydro.

**Summary and Recommendation**

We recommend current purchase of the American Depositary Shares of Norsk Hydro ASA for representation in a financially sound, well-managed, energy and light metals producer that promises a real return to offset the declining value of dollar-denominated assets. Near-term oil production and long-life natural gas production offshore Norway generate a high-quality, growing income stream that accounts for 65% of projected 2004 cash flow. Diversified commodity operations include aluminum production and a global fertilizer business. Hydro shareholders vote January 15 to approve the separation of the agribusiness in a distribution of shares to shareholders of Hydro. We hope that will help catalyze better recognition of an undervalued stock at a time when U.S. dollar holders urgently seek alternatives to low interest rates and falling international exchange. Having first analyzed the stock 13 years ago, we think the main risk in NHY is that we may have to wait longer for the superior appreciation we expect eventually.

**Energy Investment Appears Timely**

Oil and gas prices are going up, not down, despite the wishful thinking of most consumers and investors. We believe the trend will continue up while most energy investments seem priced for the trend to be down. The difference in valuation implications is dramatic. The argument for taking dollars that are declining and putting them into energy that is going up seems compelling to us.

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## **Norsk Hydro Seems an Attractive Energy Investment**

Majority-owned by the Norwegian government, the company enjoys a favored position in an important source of international energy supply. Oil production has matured, though results continue to be stronger than conservative expectations, while natural gas production is still early in its long-term growth. Hydro reports reserves that translate into an adjusted life index of 8.9 years that should be worth an unlevered multiple of cash flow of 6.9 times in the framework we are updating currently. All of the company seems valued at only 4.4 times cash flow.

## **Commodity and Non-U.S. Stocks Offer Dollar Diversification**

Like energy, aluminum is a global commodity whose price is set in markets that are broader than one currency. As the dollar goes down, the price of aluminum in dollars should go up to offset that. Whether that actually happens depends more on the state of economic activity than is the case for energy. Current signs point to an increasingly global economic recovery subject to the usual risks.

Americans are fortunate that the U.S. stock market and the U.S. currency have been sufficiently strong in the past century that there has not been much need for Americans to invest outside their own country. That may be changing as the U.S. has interest rates below inflation and is running large budget and trade deficits. As a result, we think that international diversification of investments takes on new urgency.

## **Norsk Hydro Stock Looks Undervalued**

There is a lot of room for appreciation in Norsk Hydro stock before one need become concerned about valuation being too high. We peg the present value of the businesses in our framework at 6 times unlevered cash flow. Even that leaves some cushion below the 6.9 we would normally use for Hydro's adjusted reserve life. On a levered basis, our estimate of present value implies a stock price of \$95 a share.

Estimated cash flow for the year 2004 is in line with recent experience adjusted for oil price taken from the futures market (see Table). Management reports earnings and cash flow on the basis of U.S. accounting standards. The company provides an especially helpful breakdown of Ebitda that we adjust for our purposes. The main adjustment we make is to assume a tax rate of 35% rather than the rate above 60% actually incurred. While that makes our Ebitda lower, it also makes the number more comparable with that for most companies that pay the lower rate. Though we make our projections with the latest exchange rate for the Norwegian kroner, we do not attempt to project reported accounting gains or losses from changes in exchange rate.

## **Proposed Spinoff Appears Shareholder Friendly**

Presuming the vote is favorable on January 15, investors will receive by March 25 for each share of Hydro one share of a newly created entity that will hold Hydro's fertilizer operations. The relative net values apparently are about 8% for the spinoff and 92% for the remaining entity.

The rationale is simple. A focused company is likely to be managed more effectively and valued more accurately in the stock market.

The proposed spinoff follows the implementation of a stock repurchase plan last year. Both steps signify to us that a government-dominated company is becoming more serious about achieving a stock market value that more realistically reflects the value of Hydro's assets. Eventually, lower government ownership and lower taxation would help further.

The separation of the agricultural business furthers the transformation to an oil and gas company. German investors formed the company in 1905 to apply hydropower to the electrolysis of water to produce hydrogen to be combined with nitrogen to make ammonia as a base for nitrogen fertilizers. Today, by its own press release, the agricultural business is the world's leading fertilizer company with operations in 130 countries.

The company also applied hydropower to the production of magnesium in 1951 and to aluminum in 1967. Today, Hydro is one of the top three aluminum, or aluminium as the company spells it, producers in the world.

Hydro obtained oil exploration rights in 1965 seeking a feedstock for hydrogen in order to remain competitive in ammonia. Phillips Petroleum, with Hydro as a partner, discovered the Ekofisk field in 1969 that launched Norway to becoming a leading oil exporter.

Now the three main businesses of Hydro are large enough to be self-standing. It seems only a matter of time before aluminum also becomes a separate entity.

Of course, investment in Hydro stock is subject to a full range of economic, political, financial and business risks. Along the financial dimension, Hydro's low ratio of debt implies less risk than for most stocks. For more details on risks and opportunities, management provides an abundance of descriptive disclosure including a 456 page demerger document.

Kurt H. Wulff, CFA

**McDep Associates**  
**Independent Stock Idea**  
January 5, 2004

**Norsk Hydro**  
**Next Twelve Months Operating and Financial Estimates**

|                            | <i>Q1</i>      | <i>Q2</i>      | <i>Q3</i>      | <i>Q4E</i>      | <i>Year</i>  | <i>Next</i>     |
|----------------------------|----------------|----------------|----------------|-----------------|--------------|-----------------|
|                            | <i>3/31/03</i> | <i>6/30/03</i> | <i>9/30/03</i> | <i>12/31/03</i> | <i>2003E</i> | <i>Twelve</i>   |
|                            |                |                |                |                 |              | <i>Months</i>   |
|                            |                |                |                |                 |              | <i>12/31/04</i> |
| <b>Volume</b>              |                |                |                |                 |              |                 |
| Natural gas (bcf)          | 84             | 61             | 64             | 83              | 292          | 293             |
| Natural Gas (mmcf/d)       | 936            | 672            | 696            | 900             | 801          | 800             |
| Days                       | 90             | 91             | 92             | 92              | 365          | 366             |
| Oil (mmb)                  | 36             | 34             | 34             | 38              | 142          | 150             |
| Oil (mbd)                  | 396            | 372            | 373            | 410             | 388          | 410             |
| Total gas & oil (mbd)      | 552            | 484            | 489            | 560             | 521          | 543             |
| <b>Price</b>               |                |                |                |                 |              |                 |
| Natural gas (NOK/mcf)      | 28             | 29             | 29             | 29              | 29           | 29              |
| Natural gas (NOK/Sm3)      | 0.99           | 1.03           | 1.01           | 1.01            | 0.81         | 0.81            |
| <b>Oil</b>                 |                |                |                |                 |              |                 |
| WTI Cushing US\$/bbl)      | 34.03          | 29.07          | 30.22          | 31.18           | 31.12        | 30.45           |
| Kroner/\$                  | 7.06           | 7.00           | 7.32           | 6.99            | 7.09         | 6.66            |
| WTI Cushing (NOK/bbl)      | 240            | 204            | 221            | 218             | 221          | 203             |
| NHY (NOK/bbl)              | 224            | 179            | 207            | 204             | 203          | 189             |
| Total gas & oil (NOK/bbl)  | 208            | 178            | 198            | 195             | 195          | 185             |
| NY Harbor 3-2-1 (\$/bbl)   | 6.96           | 5.83           | 7.61           | 5.27            | 6.42         | 6.17            |
| <b>Revenue (NOKmm)</b>     |                |                |                |                 |              |                 |
| Natural Gas                | 2,363          | 1,784          | 1,832          | 2,369           | 8,348        | 8,380           |
| Oil                        | 7,983          | 6,043          | 7,090          | 7,678           | 28,793       | 28,414          |
| Other                      | 36,831         | 34,535         | 34,767         | 34,767          | 140,901      | 139,069         |
| Total                      | 44,814         | 40,578         | 41,857         | 44,814          | 172,063      | 175,864         |
| <b>Expense</b>             |                |                |                |                 |              |                 |
| Production                 | 4,448          | 3,447          | 3,667          | 3,898           | 15,461       | 14,929          |
| Other                      | 34,254         | 31,144         | 31,991         | 31,853          | 129,242      | 127,410         |
| Total                      | 38,703         | 34,591         | 35,658         | 35,751          | 144,702      | 142,339         |
| <b>Ebitda (\$mm)</b>       |                |                |                |                 |              |                 |
| Exploration and Production | 5,898          | 4,379          | 5,255          | 6,149           | 21,681       | 21,866          |
| Other                      | 2,576          | 3,392          | 2,776          | 2,915           | 11,659       | 11,659          |
| Total Ebitda               | 8,474          | 7,771          | 8,031          | 9,063           | 33,340       | 33,525          |
| Exploration                | 390            | 416            | 303            | 370             | 1,479        | 1,479           |
| Deprec., Deplet., & Amort. | 3,651          | 3,556          | 4,049          | 4,049           | 15,305       | 16,196          |
| Other non cash             |                |                |                |                 | -            | -               |
| <b>Ebit</b>                | 4,433          | 3,799          | 3,679          | 4,645           | 16,556       | 15,850          |
| Interest                   | 590            | 545            | 477            | 477             | 2,089        | 1,908           |
| Foreign Exchange           | 469            | (318)          | (475)          | -               |              |                 |
| <b>Ebt</b>                 | 3,374          | 3,572          | 3,677          | 4,168           | 14,791       | 13,942          |
| Income Tax                 | 1,181          | 1,250          | 1,287          | 1,459           | 5,177        | 4,880           |
| <b>Net Income (\$mm)</b>   |                |                |                |                 |              |                 |
| Exploration and Production | 5,482          | 3,107          | 4,579          |                 |              | -               |
| Other Operations           | 1,290          | 1,512          | 1,151          |                 |              | -               |
| Non operating deductions   | (4,579)        | (2,297)        | (3,340)        |                 |              | -               |
| Total                      | 2,193          | 2,322          | 2,390          | 2,709           | 9,614        | 9,062           |
| <b>Shares (millions)</b>   |                |                |                |                 |              |                 |
| Per share (\$)             | 8.50           | 9.00           | 9.30           | 10.54           | 37.34        | 35.26           |
| Ebitda Margin (E&P)        | 57%            | 56%            | 59%            | 61%             | 58%          | 59%             |
| Tax Rate                   | 35%            | 35%            | 35%            | 35%             | 35%          | 35%             |

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